1,800 Russians At Work sent to ADD, Baltimore Sun 10 Nov 57

U.S. Trails In Distributing Science Data

By WELDON WALLACE

In various important fields, including aeronautics, American science as a whole knows very little about Russian research, though extensive Soviet material is available, and Russia has shown enthusiastic co-operation in sending its publications to this country.

The United States has no central source to which scientists can turn to keep abreast of advances made in other parts of the world.

Big Staff Maintained

By contract, the Soviet Government maintains a huge central agency, with a staff estimated at 1,800 persons, to collect the best reports from all over the world and distribute them to Russian scientists.

In the United States, reports from abroad are translated and distributed on an irregular and unco-ordinate basis. Scientific societies act individually in this endeavor, and the Government sponsors some translating and distribution, acting through agencies of rather specific scope.

A certain percentage of translated materials gets into the hands of American scientists readily. But in many fields, distribution is poor or non-existent, according to Ralph E. O'Dette, who is assocated with the National Science Foundation as program director for foreign science information.

Check Is Difficult

Even when foreign material has been translated and published here, scientists may not know where to put their hands on it, for there is not sufficient time or opportunity to check different sources to search the literature.

In aeronautics, the very field highlighted by the sputniks, American use of Russian reports has lagged far behind Russian use of world-wide materials, according to a report from the Pergamon Institute, a non-profit foundation set up in New York to translate Russian materials on aeronautics and controlled flight.

Soviets Send Materials

The presidium of the Russian Academy of Sciences sends the Pergamon Institute advance page proofs and illustrations of various journals it publishes. The Institute of Mechanics of Russia has agreed to perform a dimilar service.

Under the Stalin regime, Russia showed no such willingness to share, it was stated, but especially within the past two years, Russians have demonstrated eagerness to have wide distribution of their materials that are available in the open literature.

Of course, no one can say what research they may have done which is not published in the open literature.

Hopkins Man Asked To Aid

A Baltimore scientist, Dr. Mark V. Markovin, of the Johns Hopkins University, has been invited to assist in the Pergamon Institute's translating activities.

One of the needs in distributing scientific reports is for some kind of evaluation service, Dr. Morkovin said. He pointed to a large stack of periodicals on his desk and said, "These come in here, and while a few of them are worth reading, many are not."

Under the Soviet system as described by Mr. O'Dette, material is selected carefully from among 10,000 world-wide scientific periodicals annually.

The cream of the papers is chosen by the staff of an information institute operated by the Soviet Academy of Sciences.

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35 Soviet Journals Studied

About 35 Russian scientific pournals now are being translated by various agencies, governmental and private, in the United States, it is estimated by Ralph E. O'Dette, of the National Science Foundation.

Does this seem like an adequate review of the available material?

"There are some 6,000 sources of original scientific research in the Soviet Union," Mr. O'Dette said. These sources include periodicals that come out at regular times and other periodicals that appear at irregular intervals durin gthe year.

Among the American organizations engaged in translating the Russian pournals are the following:

The National Science Foundation, the National Institutes of Health, the Consultants Bureau, the Pergamon Institute, the American Institute of Physics and the American Institute of Biological Sciences.

U.S. Falls Behind Russians In Distributing Science Data

By WELDON WALLACE

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This group is said to total at least 1,800 persons.

The papers they select are farmed out all over Russia to an estimated 20,000 scientists, who make abstracts of the material and send them to the institute.

Each abstract is printed in one or more of some fifteen reference journals published monthly by the Soviet Government.

Each journal is devoted to one field such as physics, chemistry, metallurgy, mathematics, biology, astronomy and others.

Duplication Avoided

A single paper will appear in several journals if it is pertinent to different fields. This practice saves duplication of effort, Mr. O'Dette explained, for without a central service, several societies might translate the same paper.

When German scientific reports began to become available toward the end of World War II, as many as ten different groups in the United States translated the same material, according to Dr. Morkovin.

If a similar duplication of Russian material should follow the intense interest aroused by the sputniks, the effort would be particularly wasteful, he added, for there are few persons in the United States who know both the Russian language and the technical subjects.

Budgeting Needed

In aeronautics, he estimated, no more than 20 to 30 persons would fill both qualifications.

Their efforts, therefore, must be carefully budgeted.

In some subjects covered extensively by the Russians there are no American services for making abstracts of foreign publications. Mr. O'Dette listed among these the following: Engineering, astronomy and geodesy.

The Soviet institute not only sends out its monthly reference journals but also it operates an "express" service for the rapid distribution of highly important papers as soon as they are received.

Chemical Group Praised

In comparing the Soviet and American systems of distributing scientific material, one has to keep in mind that they reflect different political philosophies, Mr. O'Dette emphasized. One would expect centralized control in Russia.

As an example of effective accomplishment under the free-enterprise system, Mr. O'Dette cited the American Chemical Society's publications.

With a staff of more than 150 at Columbus, Ohio, the society published 100,000 chemical abstracts last year, tapping some 7,000 different journals for material, at least half of which came from foreign periodicals, including Russian.

Next year the society will publish 115,000 abstracts.

Project Called Best

About 1,600 volunteers among scientists all over the world collect papers for this project and make abstracts.

The chemical society's indexing is far superior to Russian indexing, Mr. O'Dette said, adding that a collection of abstracts without an adequate index is "something like a telephone book without names."

Dr. Donald H. Andrews, professor of chemistry at the Hopkins, considers this project "the best of its kind in the world."

There are other scientists who feel that even though the chemical society does an excellent job, there is still a need to do more in the way of evaluating the material chosen.

Others Behind

Other scientific groups in this country are far below the level of the chemical society in regard to the thoroughness of exploring and distributing world reports on research it was stated.

The American Institute of Physics, for example, translates four Russian journals, but this is not an extensive sampling of available material, and American physicists rely chiefly on *Physics Abstracts*, published in Britain, to keep up with worldwide activities in their field.

So far as United States Government agencies are concerned, effective information services are maintained by the National Institutes of Health and the Atomic Energy Commission, both of which collect much material from over the world and make it accessible to American scientists.

Monthly Lists Issued

Outlets for AEC and other bodies include the office of technical services of the Department of Commerce, where publications may be purchased at cost, and the Special Libraries Association Translation Center in Chicago.

The translation center has some 17,000 papers in all scientific fields, and its issues monthly lists of its supplies.

Another source is *Nuclear Science Abstracts*, a Government publication, where the AEC material appears.

Translations Offered

The Library of Congress performs a useful service by translating the titles and tables of contents of all Russian and East European accessions.

Government agencies support the United States Joint Publications Research Service in New York to get translations of foreign scientific literature.

The Pergamon Institute, a relatively new group, also receives support from government agencies.

A private organization that has made an important contribution in scientific translation is the Consultants Bureau in New York, a pioneer in the field.

Helped Form Publication

Dr. Morkovin, in addition to his work at the Hopkins, is one of about 600 scientists who evaluate reports and make abstracts for a publication called *Applied Mechanics Reviews*, which he helped to organize in 1948 while serving with the Office of Naval Research.